

IN THE CLAIMS

1. (currently amended) A sensor for measuring a physical parameter of a fluid, in particular for measuring total air temperature, the sensor comprising:

a fluid intake fitted to a streamlined body;

a duct provided in said streamlined body to enable fluid flow, said duct communicating with said fluid intake; and

a sensing element disposed inside said duct;

wherein the sensor comprises a fixing flange having a bearing surface defining a fixing plane for the sensor, and wherein the leading edge of said inlet section of said fluid intake extends so as to define a surface that slopes with respect to a surface perpendicular to the fixing plane, said sloping surface defining a sliding surface for any pieces of ice that may come to bear there against.

2. (previously presented) The sensor according to claim 1, wherein the inlet section presents an inclination with respect to a section orthogonal to the main flow direction of the fluid.

3. (previously presented) The sensor according to claim 1, wherein the inlet section defines a sliding surface that is concave or convex.

4. (previously presented) The sensor according to claim 1, wherein the fluid intake presents an inside section defined by at least one plane surface which communicates with a chamber that opens to the outside and that constitutes a boundary layer suction chamber;

wherein said plain surface includes for this purpose a plurality of suction slots extending transversely relative to the general flow direction of the stream in the fluid intake.

5. (previously presented) The sensor according to claim 4, wherein the slots extend in said plane wall perpendicularly to the general flow direction of the fluid.

6. (previously presented) The sensor according to claim 4, wherein the slots extend in a chevron shape in said plane wall.

7. (previously presented) The sensor according to claim 4, wherein the slots extend through the thickness of the wall so as to slope downstream.

8. (previously presented) The sensor according to claim 1, wherein the sensing element comprises a ceramic tube having a measurement resistive wire wound thereon.

9. (previously presented) The sensor according to claim 8, said sensor further comprising a support mandrel carrying the sensing element and made of a thermally insulating ceramic.

10. (previously presented) The sensor according to claim 8, wherein the streamlined body is inclined relative to the fixing plane and presents a longitudinal axis which extends other than perpendicularly relative to said plane.

11. (previously presented) The sensor according to claim 8, wherein the angle between the longitudinal axis of the streamlined body and the direction perpendicular to the fluid flow and/or to the fixing plane lies substantially in the range 5° to 15° .

12. (previously presented) The sensor according to claim 8, wherein the fluid intake presents an inside section defined by two substantially plane surfaces extending facing each other, and interconnected by surfaces of rounded shape.

13. (previously presented) The sensor according to claim 8, wherein the angle between the longitudinal axis of the streamlined body and the direction perpendicular to the fixing plane lies substantially in the range of 5° to 15° .

14. (previously presented) The sensor according to claim 1, wherein the streamlined body is inclined relative to the fixing plane and presents a longitudinal axis which extends other than perpendicularly relative to said plane.

15. (previously presented) The sensor according to claim 14, wherein the angle between the longitudinal axis of the streamlined body and the direction perpendicular to the fluid flow lies substantially in the range of 5° to 15°.

16. (previously presented) The sensor according to claim 1, wherein the fluid intake presents an inside section defined by two substantially plane surfaces extending facing each other, and interconnected by surfaces of rounded shape.

17. (currently amended) The sensor according to claim 1, wherein the streamlined body includes a longitudinal axis and the angle between the longitudinal axis of the streamlined body and the direction perpendicular to fixing plane lies substantially in the range of 5° to 15°.

18. (previously presented) The sensor according to claim 4, wherein the streamlined body is inclined relative to the fixing plane and presents a longitudinal axis which extends other than perpendicularly relative to said plane.

19. (currently amended) The sensor according to claim 4, wherein the streamlined body includes a longitudinal axis and the angle between the longitudinal axis of the streamlined body and the direction perpendicular to the fluid flow lies substantially in the range of 5° to 15°.

20. (previously presented) The sensor according to claim 4, wherein the fluid intake presents an inside section defined by

two substantially plane surfaces extending facing each other, and interconnected by surfaces of rounded shape.

21. (currently amended) The sensor according to claim 4, wherein the streamlined body includes a longitudinal axis and the angle between the longitudinal axis of the streamlined body and the direction perpendicular to the fixing plane lies substantially in the range of 5° to 15°.